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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,673	05/21/2004	Sadanand V. Deshpande	FIS920040061US1	3672

32074 7590 03/14/2006

INTERNATIONAL BUSINESS MACHINES CORPORATION  
DEPT. 18G  
BLDG. 300-482  
2070 ROUTE 52  
HOPEWELL JUNCTION, NY 12533

EXAMINER
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DANG, PHUC T

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

<b>Office Action Summary</b>	Application No. 10/709,673	Applicant(s) DESHPANDE	
	Examiner PHUC T. DANG	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-30 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>052104</u> . | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### **Oath/Declaration**

1. The oath/declaration filed on May 21, 2004 is acceptable.

### **Specification**

This application is in condition for allowance except for the following formal matters:

- i) On specification, paragraph [0026], line 8, insert "13" after -- an upper, heavily doped, polysilicon layer --.

### **Drawings**

- ii) The FIG. 2 is objected to as failing to comply with 37 CFR 1.84(p) (5) because the do not include the following reference sign(s) 21 mentioned in the description. Correction is required.

### **Allowable Subject Matter**

2. Claims 1-30 are allowed.

The following is a statement of reason for the indication of allowable subject matter:

Claims are considered allowable since the prior art of record and the considered pertinent to the applicant's disclosure does not teach or suggest a step of etching a portion of the semiconductor region exposed by patterned mask in an environment including a polymerizing fluorocarbon, and at least one non-polymerizing substance selected from the group consisting of non-polymerizing fluorocarbons and hydrogenated fluorocarbons as recited in claim 1 a step of etching a portion of the semiconductor region exposed by the patterned mask in an environment including at least one substance selected from the group consisting of chlorine-free fluorocarbons

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having a high ration of carbon to fluorine atoms, and at least one substance selected from the group consisting of fluorocarbons having a low ratio of ratio of carbon to fluorine atoms, and hydrogenated fluorocarbons as recited in claims 14 and 26.

Prosecution on the merit is closed in accordance with the practice under Ex Parte Quayle, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

When responding to the Office action, Applicants' are advice to provide the Examiner with the line numbers and page numbers in the application and/or references cited to assist the Examiner to locate the appropriate paragraphs.

#### **Conclusion**

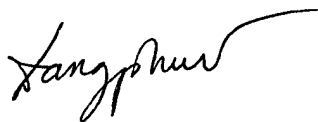
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuc T. Dang whose telephone number is (571) 272-1776. The examiner can normally be reached on 8:00 am-5:00 pm.
4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and After Final communications.
5. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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Phuc T. Dang

A handwritten signature in black ink, appearing to read 'Phuc T. Dang', with a long, sweeping horizontal stroke extending to the right.

Primary Examiner

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